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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,344	02/06/2004	Kengo Kurose	04329.3239	4489

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EXAMINER
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BALAOING, ARIEL A

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/772,344

Applicant(s)

KUROSE ET AL.

Examiner

Ariel Balaoing

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-5 and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 12 have been amended to include the limitation *wherein the first neighbor list and the second neighbor list are used without determining characteristics of the serving base station*. However, it is clear from the specification that characteristics of the serving base station are determined when using the neighbor lists. This can be seen on page 7, lines 7-26 of the specification, "*If the serving base station is changed in a standby mode from the first base station to a second base station, a second neighbor list is acquired from the second base station*". The serving base station is changed to a standby mode which determines the use of a neighbor list. Furthermore, Figures 2 and 3 show that SIR of the active base station is measured and compared to candidate base stations. In both instances, characteristics of the serving base station are determined.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSTROFF et al (US 6,201,968 B1) in view of BONTA (US 2002/0077103 A1).

Regarding claim 1, OSTROFF discloses a mobile communication terminal for use in a cellular mobile communication system (abstract), comprising:

a circuit configured to acquire a first neighbor list from the first base station serving the mobile communication terminal in a standby mode, the first neighbor list storing data indicating first peripheral base stations existing near the first base station (abstract; col. 3, line 8-col. 4, line 13; monitor list is acquired from current serving site);

a memory configured to store the acquired first neighbor list (**210**; col. 3, lines 53-60);

a circuit configured to acquire, if the serving base station is changed in a standby mode from the first base station to a second base station, a second neighbor list from the second base station, the second neighbor list storing data indicating second peripheral base stations existing near the second base station (**520**; abstract; col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; mobile device switches cells and acquires cell list from second cell);

a measurement circuit configured to measure, when the second base station is serving the mobile communication terminal in a standby mode, communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, and communication quality between

Art Unit: 2617

the mobile communication terminal and each of the first peripheral base stations listed in the stored first neighbor list (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63); and

a circuit configured to select, as a hand-off destination candidate, one of the first peripheral base stations and the second peripheral base stations, which satisfies a preset condition, based on the measured communication quality (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63).

However, OSTROFF does not expressly disclose wherein the first neighbor list and the second neighbor list are used without determining characteristics of the serving base station. BONTA discloses wherein the first neighbor list and the second neighbor list are used without determining characteristics of the serving base station (paragraph 25; position of mobile device is used to determine the use of neighbor lists). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OSTROFF to include the teachings of OSTROFF, since OSTROFF states that such a modification would provide system control parameters optimized for a region of the mobile device (paragraph 16, 17).

Regarding claim 2, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the memory stores the first neighbor list until a number of occasions in which selection for selecting the hand-off destination candidate is performed reaches a preset value (col. 5, line 64-67; first neighbor list is replaced when conditions are deemed adequate).

Regarding claim 12, OSTROFF discloses a control unit incorporated in a mobile communication terminal for use in a cellular mobile communication system, the mobile communication terminal also incorporating a radio unit configured to transmit and receive radio signals to and from base stations, the radio unit being connected to the control unit (abstract), the control unit comprising:

a first reception control section configured to make the radio unit to receive a first neighbor list from the first base station serving the mobile communication terminal in a standby mode, the first neighbor list storing data indicating first peripheral base stations existing near the first base station (abstract; col. 3, line 8-col. 4, line 13; monitor list is acquired from current serving site);

a memory configured to store the received first neighbor list (**210**; col. 3, lines 53-60);

a second reception control section configured to make the radio unit to receive, if the serving base station is changed in a standby mode from the first base station to a second base station, a second neighbor list from the second base station, the second neighbor list storing data indicating second peripheral base stations existing near the second base station (**520**; abstract; col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; mobile device switches cells and acquires cell list from second cell);

a measurement control section configured to measure, when the second base station is serving the mobile communication terminal in a standby mode, communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, and communication quality

Art Unit: 2617

between the mobile communication terminal and each of the first peripheral base stations listed in the stored first neighbor list, measurement of the communication quality being performed based on the signals received by the radio unit (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63); and

a selection section configured to select, as a hand-off destination candidate, one of the first peripheral base stations and the second peripheral base stations, which satisfies a preset condition, based on the measured communication quality (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63).

However, OSTROFF does not expressly disclose wherein the first neighbor list and the second neighbor list are used without determining characteristics of the serving base station. BONTA discloses wherein the first neighbor list and the second neighbor list are used without determining characteristics of the serving base station (paragraph 25; position of mobile device is used to determine the use of neighbor lists). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OSTROFF to include the teachings of OSTROFF, since OSTROFF states that such a modification would provide system control parameters optimized for a region of the mobile device (paragraph 16, 17).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over OSTROFF et al (US 6,201,968 B1) in view of BONTA (US 2002/0077103 A1) and further in view of WALLSTEDT et al (US 5,84,981).

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination OSTROFF and BONTA

Art Unit: 2617

does not expressly disclose wherein the memory stores the first neighbor list for a preset time. WALLSTEDT discloses wherein a memory stores a neighbor list for a preset time (col. 15, line 23-col. 16, line 2; col. 18, lines 8-48; memory updates the neighbor list according to a predetermined time). Therefore for it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination OSTROFF and BONTA to include storage of a neighbor list for a preset time, as taught by WALLSTEDT, as periodic updates to the neighbor list can be used to filter a neighbor list to include sectors with a predetermined quality providing a more efficient monitored list.

6. Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSTROFF (US 6,188,904 B1) in view of BONTA (US 2002/0077103 A1) and further in view of SATARASINGHE (US 6,112,089).

Regarding claim 4, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the measurement circuit measures reception quality from each of the first and second peripheral base stations (col. 3, line 8-col. 4, line 13; RSSI). However, the combination OSTROFF and BONTA does not expressly disclose wherein the pilot signal reception quality is measured. SATARASINGHE discloses wherein the pilot signal reception quality is measured (column 2:lines 25-45). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination OSTROFF and BONTA to measure the pilot signal quality, as taught by

SATARASINGE, as measurement of a received pilot channel in order to determine signal interference (signal quality) is well known in the art of hand over.

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the measurement circuit measures the communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, the measurement circuit also measuring the communication quality between the mobile communication terminal and those of the first peripheral base stations listed in the stored first neighbor list (abstract; col. 3, line 8- col. 4, line 13). However, the combination OSTROFF and BONTA does not expressly disclose wherein the neighbor list is obtained by excluding the first peripheral base stations doubly listed as the second peripheral base stations in the second neighbor list. SATARASINGE discloses wherein the neighbor list is obtained by excluding the first peripheral base stations doubly listed as the second peripheral base stations in the second neighbor list (Figures 2 and 3; column 3:lines 16-67). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination OSTROFF and BONTA to exclude doubly listed cells, as this increase processing speed and efficiency of the handover.

***Allowable Subject Matter***

7. Claims 6-11, and 13 are allowed.
8. The following is an examiner's statement of reasons for allowance: Claims 6-11, and 13 are allowed for the reasons provided in the Office Action mailed March 30, 2006.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

Art Unit: 2617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ariel Balaoing – Art Unit 2617

HB 4/27/06

AB



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